

NextShares Price Display Guidelines

Purpose

The intended purpose of this document is to provide a common reference point for the market data vendor community to use as they develop price displays for NextShares™ exchange-traded managed funds. It is for informational and guidance purposes only.

Background

Different from other exchange-traded instruments, NextShares use a new trading protocol called “NAV-based trading.” In NAV-based trading, all bids and offers are quoted intraday relative to the fund’s next end-of-day net asset value per share (NAV) and the prices of all trades are directly linked to the next-calculated daily NAV. Trades are binding at the time orders are matched, with the final price contingent upon the determination of NAV. As an illustration, a NextShares fund may be quoted at a particular time during the daily trading session at a bid price of NAV -\$0.01 and an offer price of NAV +\$0.02. An order to buy shares that executes at the quoted offer is priced at two cents over NAV. If the fund’s NAV on that day is \$20.00, the final trade price of the purchased shares is \$20.02.

NextShares orders are available to trade on the Nasdaq Stock Market throughout regular market hours – e.g., 9:30 a.m. to 4:00 p.m., Eastern Time (ET).

At the market data level, Nasdaq will support the following data elements for NextShares trading:

Data Element	Frequency	Data Product
Intraday quotes and trade prices in <i>proxy price</i> format (see below)	Real-time throughout Nasdaq regular market hours	UTP Level 1 Nasdaq TotalView Nasdaq Level 2 Nasdaq Basic (QBBO) Nasdaq Last Sale (NLS) NLS Plus
Intraday quotes and trade prices in <i>NAV-based price</i> format (see below)	Real-time throughout Nasdaq regular market hours	Nasdaq Basic (QBBO) Nasdaq Last Sale (NLS) NLS Plus
NOII data	Available for Closing Cross	Nasdaq TotalView
Intraday Indicative Value (IIV)	15 minute intervals throughout Nasdaq regular market hours	Nasdaq Global Index Data Service (GIDS)
Daily Net Asset Value (NAV)	Once daily, post market close	Mutual Fund Dissemination Service (MFDS)
Final prices of executed transactions for Nasdaq exchange	Once daily, post-market close	NextSharesFTP file (new)
Dividends	As available	Nasdaq Daily List (Advance Notifications) MFDS (Ex Date)

Proxy prices

Trade transmission and processing systems currently in use are typically not designed for pricing arrangements, such as NAV-based trading, in which bids, offers and execution prices are determined by reference to a price or value that is unknown at the time of trade execution. To address this limitation and accommodate NAV-based trading, the prices of NextShares trades and quotes are represented in “proxy price” format in the systems used to transmit and process transactions.

In proxy price format, the current trading day’s end-of-day NAV is represented as 100.00 and a premium/discount of a stated amount to NAV is represented by the same increment/decrement from 100.00 (e.g., NAV -\$0.01 is represented as 99.99; NAV +\$0.01 as 100.01).

All data disseminated via the UTP data feed, including the Nasdaq official opening price (NOOP) and Nasdaq official closing price (NOCP), are stated in proxy price format. To avoid potential investor confusion, representations of intraday bids, offers and execution prices of NextShares trades made available to the investing public should follow the NAV-based display format, rather than proxy price format.

NAV-based prices

The NAV-based display format is used intraday to express NextShares trade and quote prices in relation to the fund’s next end-of-day NAV. As illustration, a price one cent below the reference NAV is represented as “NAV -\$0.01” and a price two cents above the reference NAV is represented as “NAV +\$0.02.” NAV-based prices provide a direct measure of the premium/discount to NAV reflected in NextShares trades and quotes. Using NAV-based prices, a buyer or seller of NextShares can assess his or her trading costs in a manner that is not available for conventionally traded ETFs.

Nasdaq makes available trade and quote prices in the NAV-based display format on the Nasdaq Basic (QBBO), Nasdaq Last Sale (NLS) and NLS Plus data feeds. The increment/decrement from NAV may also be determined by deducting \$100.00 from disseminated proxy prices.

IIVs and NAVs

For each NextShares fund, an intraday indicative value (IIV) is calculated and published every 15 minutes throughout regular market hours. Consistent with market practice for ETFs and the calculation of fund NAVs, the IIVs are based on the fund’s portfolio as of the close of the previous business day. IIVs may be used to provide a current estimate of NAV, helping investors determine the number of shares to buy or sell if they wish to transact in an approximate dollar amount. IIVs are disseminated via the Nasdaq Global Index Data Service (GIDS) data feed.

At the end of each trading day, the daily NAV of each NextShares fund is calculated by the fund’s NAV pricing agent. Fund NAVs are reported via the Mutual Fund Quotation Service (MFQS) and disseminated via the Mutual Fund Dissemination Service (MFDS) data feed. Fund NAVs are expected to become reported to the MFQS system between 5:00 p.m. and 6:45 p.m., ET.

Final prices of NextShares trades

At the end of each trading day, Nasdaq calculates the final price of each NextShares trade executed that day by adding the executed premium/discount for each trade to NAV. Under normal circumstances, Nasdaq uses the NAV reported from the MFDS spin at 6:45 p.m., ET to determine the final price of executed trades. Once the end-of-day process is completed, Nasdaq posts a file with the final clearing prices for its NextShares trades on the NextSharesFTP File.

Considerations for price displays

- Who is viewing the data?
 - For order entry/trading systems, Nasdaq recommends that the NextShares quote and trade data be in the same format that users employ to submit orders.
 - In presenting NextShares prices to the investing public, Nasdaq strongly recommends that market data vendors display NextShares quote and trade data using the NAV-based price format. *If systems limitations prevent a market data vendor from displaying NAV-based prices, Nasdaq requires that a prominent disclaimer be included on proxy price displays to ensure that investors understand the nature of the data content.*

Suggested Display Guidelines

- Integrated NextShares displays should include:
 - Most recent NAV and IIV values shown at the top of the page.
 - Bid-offer and trade prices in NAV-based format.
 - Price relative to NAV is a signed numeric field. Offset from NAV stated in pennies (not as a percentage).
 - To translate proxy price to the increment/decrement from NAV, subtract 100.00.
 - Charts (based on historical NAVs, IIVs or final trade price data points)

Trading Symbol:	NXTSC			
Instrument Name:	Nasdaq NextShares Test Instrument			
Security Type:	NextShares			
Reference Prices				
Reference Price	Current Value	Net Change	Date	Time
Intraday Indicative Value (IIV) Source: GIDS - Symbol NXTSM.IV Frequency: Every 15 minutes from 9:45 am to 4:00 pm eastern time	25.15	+0.01	10/2/2015	11:00 AM
Last Net Asset Value (LNAV) Source: MFDS – Symbol NXTSMNX Frequency: Daily as reported by fund between 4:00 pm and 6:45 pm; Summary spin at 6:45 pm	25.10	+0.04	10/1/2015	6:45 PM
Current Market				
	Price relative to Today's NAV	Size	Market Center	Time
Last Sale Source: UTDF (proxy), TotalView (proxy), NLS (proxy & NAV-based); Symbol: NXTSC	+0.01	500	Q	11:06:12
Total Share Volume Source: Calculated based on trades from UTDF	100,534			
Total Dollar Volume (Approx.) Source: Calculated by multiplying intraday share volume and LNAV	\$2,523,403.40			
Bid Source: UQDF (proxy); TotalView (proxy); Nasdaq Level 2 (proxy); QBBO (proxy & NAV-based); Symbol: NXTSC	Offer			
MPID	Price to NAV	Size	MPID	Price to NAV
				Size

NSDQ	+0.00	100	NSDQ	+0.01	500
MLCO	- 0.01	100	NITE	+0.02	500
NITE	- 0.02	100	MLCO	+0.03	100

- Non-Integrated display
 - If a market data vendor is unable to display NAV-based prices, the firm should not commingle data sets for NextShares.
 - At the top of display screen, firm should show a clear “proxy” price indicator. Ideally, the disclaimer will link to a proxy price definition.
 - Firms should not commingle proxy price data elements with IIVs and/or NAVs. IIVs and NAVs should be displayed on a separate screen accessed using GIDS / MFDS symbols.
 - Firms should not commingle intraday proxy price data elements with historical actual price data elements.

Trading Symbol:	NXTSC				
Instrument Name:	Nasdaq NextShares Test Instrument				
Security Type:	NextShares				
Disclaimer: NextShares prices stated in proxy price format .					
Current Market					
	Price	Size	Market Center	Time	
Last Sale	100.01	500	Q	11:06:12	
Total Share Volume	100,534				
Bid			Offer		
MPID	Price	Size	MPID	Price	Size
NSDQ	100.00	100	NSDQ	100.01	500
MLCO	99.99	100	NITE	100.02	500
NITE	99.98	100	MLCO	100.03	100

Net Change

- Net change should be displayed only for NAVs and IIVs.
- Net change should not be displayed for intraday trade and quote prices.

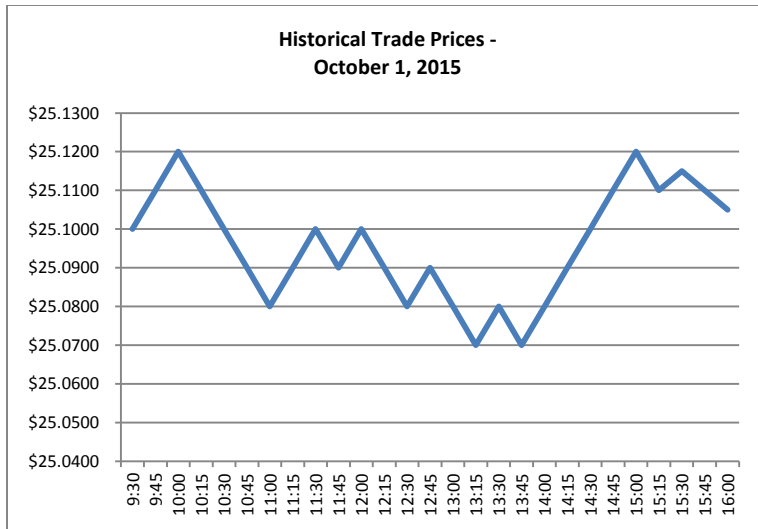
Dollar Volume / Block Trades

- Nasdaq recommends that market data vendors use Last NAV (LNAV) as the basis for intraday calculations of dollar volume and block trade size. (See consolidated data display example.)
- For end of day/historical calculations, Nasdaq will post an end-of-day NextShares file on the [Nasdaq Trader FTP server or Nasdaq Trader website](#) with the individual Nasdaq transactions with clearing trade price and volume data. Nasdaq recommends that firms use this file for historical dollar volume and block trade purposes.

Historical charts

- Historical charts should use the actual trade prices from the Nasdaq Trader end-of-day file. Below is an example of the EOD file contents and historical data chart.

Date	Time	Proxy Price	Reference Price	Trade Price	Trade Size
10/1/2015	9:30	\$100.0000	\$25.1000	\$25.1000	125
10/1/2015	9:45	\$100.0100	\$25.1000	\$25.1100	500
10/1/2015	10:00	\$100.0200	\$25.1000	\$25.1200	100
10/1/2015	10:15	\$100.0100	\$25.1000	\$25.1100	1000
10/1/2015	10:30	\$100.0000	\$25.1000	\$25.1000	1500
10/1/2015	10:45	\$ 99.9900	\$25.1000	\$25.0900	50
10/1/2015	11:00	\$ 99.9800	\$25.1000	\$25.0800	160
10/1/2015	11:15	\$ 99.9900	\$25.1000	\$25.0900	500
10/1/2015	11:30	\$100.0000	\$25.1000	\$25.1000	400
10/1/2015	11:45	\$ 99.9900	\$25.1000	\$25.0900	300
10/1/2015	12:00	\$100.0000	\$25.1000	\$25.1000	200
10/1/2015	12:15	\$ 99.9900	\$25.1000	\$25.0900	500
10/1/2015	12:30	\$ 99.9800	\$25.1000	\$25.0800	400
10/1/2015	12:45	\$ 99.9900	\$25.1000	\$25.0900	100
10/1/2015	13:00	\$ 99.9800	\$25.1000	\$25.0800	500
10/1/2015	13:15	\$ 99.9700	\$25.1000	\$25.0700	100
10/1/2015	13:30	\$ 99.9800	\$25.1000	\$25.0800	100
10/1/2015	13:45	\$ 99.9700	\$25.1000	\$25.0700	250
10/1/2015	14:00	\$ 99.9800	\$25.1000	\$25.0800	10
10/1/2015	14:15	\$ 99.9900	\$25.1000	\$25.0900	100
10/1/2015	14:30	\$100.0000	\$25.1000	\$25.1000	200
10/1/2015	14:45	\$100.0100	\$25.1000	\$25.1100	100
10/1/2015	15:00	\$100.0200	\$25.1000	\$25.1200	100
10/1/2015	15:15	\$100.0100	\$25.1000	\$25.1100	500
10/1/2015	15:30	\$100.0150	\$25.1000	\$25.1150	600
10/1/2015	15:45	\$100.0100	\$25.1000	\$25.1100	100
10/1/2015	16:00	\$ 100.0050	\$25.1000	\$25.1050	295



Portfolio calculations

- Firms should not use proxy price data for portfolio calculation purposes. Please note that, due to timing and messaging limitations, Nasdaq will disseminate cross trades and official opening/closing price values in proxy price format.
 - For end-of-day calculations, Nasdaq recommends that firm use the daily NAV from MFDS.
 - For intraday calculations, Nasdaq recommends that firms use the IIV or LNAV.